

Challenges of border crossing marine underwater inventories in very shallow coasts – case study from the Northern tip of Bothnian Bay

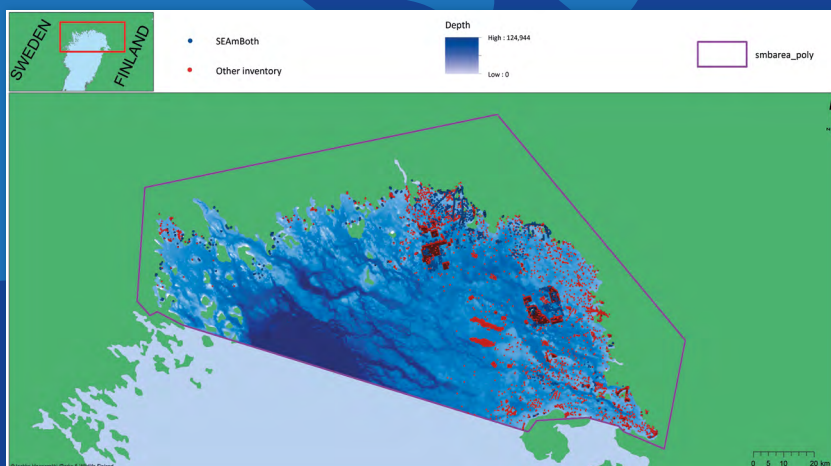
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Marine species and habitat inventories have been systematically conducted since 2007 in the northern Bothnian Bay on the Finnish side in a national inventory program (VELMU). On the Swedish side, no systematic inventory of underwater nature has been conducted. Now both countries are working on their national marine spatial plans, but the availability of data is sparse as well as cooperation between the countries.

The northern part of the Bothnian Bay is divided between Finland and Sweden, but only the border river Tornio is managed jointly. The area shares an archipelago with two marine national parks and a multitude of similar challenges. The area is very unique and rich in biodiversity and the nature values are high. At the same time, there are a multitude of human pressures and challenges to consider. The species move and human impacts spread throughout the area indifferent to administrative borders.

In order to manage the joint sea area in a sustainable and knowledge-based way, a co-operation project, Seamless Mapping and Management of the Bothnian Bay (SEAmBOTH) was started with Finland and Sweden as partners (2017–2020). In the project we combine pre-existing data, conduct additional biological and geological surveys and harmonize methods, habitat classifications and nature value interpretations. The aim of the project is to create seamless maps and models which cover the whole project area. The end products of the project can be used for managing the sea area in a sustainable way on both sides of the border.



Biological inventory points have been collected in both countries but emphasis has been given to the border river estuary and the two adjoining national parks there.



A rake is used for taking a qualitative vegetation sample when scuba diving is not used.



In very shallow water, a water binocular is the best method for sampling underwater vegetation.



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